

CLAIMS

What is claimed is:

- 5           1. A method of treating Parkinson's disease in a mammal, comprising administering a therapeutically effective amount of antisense oligonucleotide to the substantia nigra pars reticulata for the downregulation of glutamic acid decarboxylase.
- 10           2. The method of claim 1 wherein the isoform of said glutamic acid decarboxylase is GAD<sub>65</sub>.
3. The method of claim 1 wherein the isoform of said glutamic acid decarboxylase is GAD<sub>67</sub>.
- 15           4. The method of claim 1 where in the isoform of said glutamic acid decarboxylase is a combination of GAD<sub>65</sub> and GAD<sub>67</sub>.
5. A method of treating Parkinson's disease in a mammal, comprising  
20 administering a therapeutically effective amount of triplex oligonucleotide to the substantia nigra pars reticulata for the downregulation of glutamic acid decarboxylase.
6. The method of claim 5 wherein the isoform of said glutamic acid  
25 decarboxylase is GAD<sub>65</sub>.
7. The method of claim 5 wherein the isoform of said glutamic acid decarboxylase is GAD<sub>67</sub>.
- 30           8. The method of claim 5 wherein the isoform of said glutamic acid decarboxylase is GAD<sub>65</sub> and GAD<sub>67</sub>.

9. A method of treating Parkinson's disease in a mammal, comprising administering a therapeutically effective amount of antisense oligonucleotide to the internal globus pallidus for the downregulation of glutamic acid decarboxylase.

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10. The method of claim 9 wherein said isoform of said glutamic acid decarboxylase is GAD<sub>65</sub>.

11. The method of claim 9 wherein the isoform of said glutamic acid decarboxylase is GAD<sub>67</sub>.

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12. The method of claim 9 wherein the isoform of said glutamic acid decarboxylase is GAD<sub>65</sub> and GAD<sub>67</sub>.

13. A method of treating Parkinson's disease in a mammal, comprising administering a therapeutically effective amount of triplex oligonucleotide to the internal globus pallidus for the downregulation of glutamic acid decarboxylase.

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14. The method of claim 13 wherein the isoform of said glutamic acid decarboxylase is GAD<sub>65</sub>.

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15. The method of claim 13 wherein the isoform of said glutamic acid decarboxylase is GAD<sub>67</sub>.

16. The method of claim 13 wherein the isoform of said glutamic acid decarboxylase is GAD<sub>65</sub> and GAD<sub>67</sub>.

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17. A method of treating Parkinson's disease in a mammal, comprising administering a therapeutically effective amount of antisense oligonucleotide to the substantia nigra pars reticulata for the downregulation of glutamate receptors.

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18. A method of treating Parkinson's disease in a mammal, comprising administering a therapeutically effective amount of triplex oligonucleotide to the substantia nigra pars reticulata for the downregulation of glutamate receptors.

5        19. A method of treating Parkinson's disease in a mammal, comprising administering a therapeutically effective amount of antisense oligonucleotide to the internal globus pallidus for the downregulation of glutamate receptors.

20. A method of treating Parkinson's disease in a mammal, comprising  
10 administering a therapeutically effective amount of triplex oligonucleotide to the internal globus pallidus for the downregulation of glutamate receptors.

21. A method of treating Parkinson's disease in a mammal, comprising  
administering a therapeutically effective amount of antisense oligonucleotide to the  
15 thalamic motor nuclei for the downregulation of GABA receptors.

22. A method of treating Parkinson's disease in a mammal, comprising  
administering a therapeutically effective amount of triplex oligonucleotide to the  
thalamic motor nuclei for the downregulation of GABA receptors.